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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,825	11/20/2001	Volker Ernst	178/50615	8680

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EXAMINER

PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 10/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,825

Applicant(s)

ERAST ET AL

Examiner

PHAM

Group Art Unit

1724

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-18 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-18 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All ☐ Some* ☐ None of the:

- ☒ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5 ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other: _____

Office Action Summary

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-10 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (4,082,071; 10, 12, 14, 16, 18, 20, 22, 28, 34, 50, 52, 58, 61, 64, 67 & 76 in Fig. 7; col. 1, lines 13-15; col. 3, line 1 through col. 4, line 33; col. 5, line 64 through col. 6, line 2), in view of the German Patent (DE 2324575B2; 60 in Fig. 1).

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Jones discloses a liquid separator for separating liquid entrained in a crankcase gas flow of an internal combustion engine comprising a housing with a cover having an inlet and an outlet gas to be purified, a mount for a cylindrical separating cartridge received in the mount wherein the separating cartridge comprises a separating means wound around a support member with end disks on both axial end faces thereof, and wherein the end disks engage the mount to form a seal and together with the support member form a sealed assembly which divides the separator into an untreated gas zone and a treated gas zone and wherein the mount is constructed as a nipple that is gas permeable in the area between the end disks of the separating cartridge. Jones further discloses the separating means comprising nonwoven fabric and completely non-metallic. Jones also discloses the separating means and the support member embedded in at least one end disk made of rubber or bonded with an adhesive to the separating means and to the support member, and the mounting member firmly attached to the cover. Claims 1-10 and 14-18 differ from the disclosure of Jones in that the liquid separator has a drain for separating liquid. The German reference discloses an aerosol coalescing filter with a drain provided with a flow valve for separated liquid. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a drain with flow valve as taught by the German reference in the liquid separator of Jones so that the liquid separated from the crankcase air stream and accumulated in the collection chamber can be drained out.

3. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (4,082,071; 10, 12, 14, 16, 18, 20, 22, 28, 34, 50, 52, 58, 61, 64, 67 & 76 in Fig. 7; col. 1, lines

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13-15; col. 3, line 1 through col. 4, line 33; col. 5, line 64 through col. 6, line 2), in view of the German Patent (DE 2324575B2; 60 in Fig. 1), as applied supra to paragraph 2 above, in view of Gewiss et al (5,413,712; 5, 9, 10, 11, 17 & 18 in Fig. 1; col. 2, line 59 through col. 3, line 16).

Claims 11-13 call for the support member and the end disk constructed as a single part and locking members to fix the cartridge in position. Gewiss et al disclose the support member and the end disk are constructed as a single part (11, 14 & 15) and locking member with locking projections (17 & 18) to fix the cartridge in position. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the support member with locking members as taught by Gewiss et al in the liquid separator of Jones to insure good sealing between the end disk and the cover preventing any air leakage or air bypassing the separating cartridge.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Brown et al (5,685,985) disclose an environmentally friendly filter cartridge.
- Manookian, Jr. (5,586,996) discloses a vapor separating device.
- Dudrey et al (5,797,973) disclose an air filtration device.
- Bayerlein et al (6,153,098) disclose a spiral wound filter.
- Dickson (6,261,333 B1) discloses an air filter for an internal combustion engine.

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- Gieseke et al (6,290,739 B1) disclose an aerosol separator.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau Pham whose telephone number is (703) 308-1605. The examiner can normally be reached on Monday-Friday (except Wednesday) from 7:15 a.m. to 5:45 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. David Simmons, can be reached on (703) 308-1972. The fax phone number for this Group is (703) 872-9310 (non-finals) or (703) 872-9311 (after-finals).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Minh-Chau Pham

Patent Examiner

October 22, 2002